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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/514,401	11/15/2004	Rolf Gueller	93316	4379
24628 7590 06/02/2010 Husch Blackwell Sanders, LLP Husch Blackwell Sanders LLP Welsh & Katz 120 S RIVERSIDE PLAZA 22ND FLOOR CHICAGO, IL 60606				
EXAMINER				
NAGPAUL, JYOTI				
ART UNIT		PAPER NUMBER		
1797				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary**Application No.**

10/514,401

Applicant(s)

GUELLER ET AL.

Examiner

JYOTI NAGPAUL

Art Unit

1797

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 December 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☒ Claim(s) 27-35 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/22)
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date: _____

DETAILED ACTION

Amendment filed on October 1, 2009 has been acknowledged. Claims 1-35 are pending.

Response to Amendment

Rejection of Claims 1-6, 8-10, 15-21 and 23-35 as being anticipated by Kawanishi (US 5894111) has been withdrawn in light of applicant's amendments.

Rejection of Claim 7 as being unpatentable over Kawanishi has been withdrawn in light of applicant's amendments.

Rejection of Claims 11-14 and 22 as being unpatentable over Kawanishi in view of Matema (US 2002/0084920) has been withdrawn in light of applicant's amendments.

Claim Objections

1. Claim 11 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. **Claims 1, 4-5, 10, 15-21, and 23-26** are rejected under 35 U.S.C. 102(b) as being anticipated by Levin (US 5402834).

Levin teaches a solution preparation system comprising a substance intake portion having a plurality of at least one substance compartments (reservoirs (102-109)) for the intake of the substance to be dosed, an emptying portion (nozzle (115)) for the emptying of at least one of the substance compartments (reservoirs (102-109)) and a weighing balance (123) for the determination of the quantity of dosed substance. Levin further teaches a control means (computer 122) for controlling the emptying of any one or more of the substance compartments as needed dependent on the in a manner dependent on the quantity of dosed substance as determined by means of the weighing balance. (Refer to col. 3, Lines 1-27)

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. **Claims 2-3 and 6-9** are rejected under 35 U.S.C. 103(a) as being unpatentable over Levin (US 5402834) in view of Launay (US 4368684).

Refer above for the teachings of Levin.

Levin fails to teach that the substance intake portion comprises substance compartments of various size classes and at least some of the size classes are graduated across at least a factor of 5, preferably in the ratio 1:2:5. Levin fails to teach that the tubes of different size classes have different inner diameters and the inner diameters of the tubes are smaller than 5 mm, preferably smaller than 1 mm, more preferably smaller than 0.5 mm, in particular preferably smaller than 0.1 mm. Levin further fails to teach at least some of the tubes narrow progressively from the top of the tube to the bottom of the tube and at least some of the tubes have pointed or sharp-edged lower sections.

Launay teaches a distributing head comprising a first group of nozzles (10) and a second group of nozzles (11) of various sizes (refer to figure 1) having different inner diameters. According to Figure 1, least some of the tubes narrow progressively from

the top of the tube to the bottom of the tube and at least some of the tubes have pointed or sharp-edged lower sections.

The mere scaling down or changing of the dimensions of the tubes depends on the quantity desired to be dosed. It would have been obvious to one having ordinary skill in the art to provide the tubes of Launay where inner diameters are smaller than 5 mm to achieve the predictable results of minimizing error in obtaining the quantity of substance desired for filling.

It would have been obvious to one having ordinary skill in the art to provide the substance intake portion of Levin with substance compartments of various size classes and at least some of the tubes narrow progressively from the top of the tube to the bottom of the tube and at least some of the tubes have pointed or sharp-edged lower sections in order to provide a better dispensing head that accounts for mixing ratios with different sized nozzles.

8. **Claims 11-14 and 22** are rejected under 35 U.S.C. 103(a) as being unpatentable over Levin in view of Materna (US 2002/0084920).

Refer above for the teachings of Levin.

Levin fails to teach that at least some of the substance compartments have an inner surface with an arithmetic mean roughness value R larger than 0.5 and with different wettability.

Materna teaches different nozzles for dispensing liquids having wherein the nozzle has a low surface energy coating and/or nozzle geometry to provide wetting resistance. Materna teaches a nozzle with apparent hydrophobicity due to surface tension

by making a surface that is both rough and of low surface energy for obtaining or depositing the precise amount of quantity desired. (See paragraph [0086])

It would have been obvious to one having ordinary skill in the art to provide the tubes of Levin where the inner surface with an arithmetic mean roughness value R larger than 0.5 and with different wettability to achieve the predictable results of obtaining or depositing the precise amount of quantity desired.

Allowable Subject Matter

9. Claims 27-35 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

10. Applicant's arguments with respect to claims 1-35 have been considered but are moot in view of the new ground(s) of rejection. Refer to rejection above.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JYOTI NAGPAUL whose telephone number is (571)272-1273. The examiner can normally be reached on Monday thru Friday (10:00-7:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on 571-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jyoti Nagpaul/
Primary Examiner, Art Unit 1797